THE DIAGNOSIS AND TREATMENT OF BAGGY EYELIDS*

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THE causes of pouches and fullness of the eyelid may be either genetic, systemic or local degenerative disease processes. Before treating the condition, one should know its cause, since what may be normal for one person's eyelid may be pathological for another's.

Baggy eyelids may occur in children as a result of hereditary or congenital factors. They are more commonly seen in the elderly, as a result of degenerative and disease processes.

THE ORIENTAL EYE

A common form of hereditary bagginess is that most frequently seen in the yellow race. The supratarsal fold, which is usually present in Whites as an arched fold parallel to the upper lid margin, is smaller or absent in the Mongolian eye because the pretarsal fascia is not attached to the skin, such attachment being common in Whites. If the skin were to be attached to the tarsus surgically and if excess fat were to be removed from the upper lid, a normal Mongolian eye would look like a white person's eye.

A common condition seen in members of both the white and yellow races is called ptosis adiposa. This condition is due to a relaxation of the fascial bands connecting the skin with the palpebral musculature and the orbital rim. Epicanthal folds may also be present, along with ptosis adiposa.

In ptosis adiposa the upper lid margin shows a normal elevation in forward gaze. This is in contrast to blepharoptosis, in which the upper lid margin is lowered in forward gaze. Normally, in the forward gaze the upper lid margin is just below the upper limbus and above the margin

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of the pupil. It is the decrease in levator function characteristic of blepharoptosis which is responsible for the diminution or absence of the supratarsal fold.

This is obviously a situation different from that present in the Mongolian eye, where the supratarsal fold is absent and the lid level is normal in forward gaze. Blepharoptosis is treated by tightening the levator muscle and surgically restoring the supratarsal fold. Though epicanthal folds do diminish as the face develops, they may also be eliminated surgically if necessary.

Hypotelorism

There is an obvious similarity between the face in hypotelorism and that of the early normal human fetus. The classical widening of the intercanthal distance, absence of supratarsal folds, the tendency toward blepharophimosis and blepharoptosis–all are common to both states. Though there are hereditary factors in hypotelorism, it may appear sporadically. It may become corrected as the child develops, and this fact, coupled with the embryonic appearance, strongly suggests some sort of local arrest or suppression of development. Other congenital anomolies may accompany hypotelorism: there is frequently an extension of the eyebrows down over the lateral third of the upper lids; there may be an S-shaped deformity with vertical shortening of the lower lid and consequent poor drainage of tears. Extreme depression of the mandible in persons with hypotelorism produces such tightness of the facial structures as to create a transient ectropion of the lower lids.

Whereas mild cases may develop into normal appearing adults, extreme cases require surgical correction. Usually, both levator muscles are resected and supratarsal folds are created. Medial canthoplasty is done to eliminate the epicanthal folds and to narrow the intercanthal distance.

Blepharophimosis is improved by lateral canthoplasty. Vertical shortening of the lower lids may be corrected by full thickness skin grafts.

Blepharochalasis

The term blepharochalasis has been misused by clinicians to describe all forms of baggy lids, no matter what the age of the patient or the etiology of the condition. Actually, blepharochalasis, properly speaking,

is a specific, rare condition of *unknown etiology* which usually develops at puberty. At first, the only symptom is intermittent, painless edema and redness of the upper lids. The edema increases during menstruation and weeping. The increased edema accompanying weeping may be partly due to the extravasation of lacrimal fluid. With the passage of time the skin becomes stretched, loses its elasticity, and lies in countless little wrinkles. There is a progressive loss of subcutaneous tissue and a marked proliferation of capillaries. Because of relaxation and looseness of its attachments, the skin hangs in a pouch-like fold.

The five cases we have seen also showed some herniation of the lacrimal gland.

The only treatment of lasting value is excising excessive skin and edematous tissue, but even so the condition tends to recur. In order to prevent herniation, the lacrimal gland is returned to its normal position by suturing the upper portion of the capsule of the gland to the periorbita of the lacrimal fossa posterior to the orbital rim. The anterior margin of the gland capsule is sutured to the orbital rim, deep to the closure of the septum arbitate. There have been no recurrences in the patients so treated.

Senile Atrophy

Blepharochalasis is a common misdiagnosis of senile atrophic changes in the skin of the eyelids. The differences are considerable: senile atrophy has a later onset, usually involves all four lids, is associated with excessive wrinkling, "crows' feet" and excess skin. Herniated intraorbital fat may also be present. Similar changes may at the same time be seen in the skin of the face, neck, and other parts of the body. Either the eyelids or the face may show the greater change.

These signs of fading youth often cause unhappiness and self-consciousness. While psychotherapy is of help to many patients, surgical restoration can certainly help renew the patient's self-esteem.

The surgery involves excising redundant skin. The scar on the upper lid falls in the normal supratarsal fold, while that on the lower lid is concealed by the eyelashes on that lid. Face lifting is done as a separate stage, the incision being hidden by the hair of the scalp and the ear margins. Recurrence of senile atrophic skin changes is to be expected if the patient lives long enough, and may be treated by surgical revision.

Upper lid surgery rarely has complications, but resection of too much skin, excessive trauma or poor hemostasis during surgery upon the lower lid may all produce a most unpleasant deformity to which the weakened musculature in the senile lid contributes. Vertical shortening, excessive fibrosis and ectropion usually diminish as recovery progresses. Light postoperative x-ray therapy may also help decrease the deformity, but surgical correction of this surgical error is difficult and complicated. The unhappy patient may turn to other consultants, occasionally legal ones.

All this should emphasize the need for good surgical judgment, meticulous technique, and diligent postsurgical care.

Herniated Intra-Orbital Fat

Because heredity is so frequent a factor in this condition, the accuracy of its name is questionable. The symmetrical bilaterality of the herniated fat makes the exact mechanism of the displacement puzzling.

The vertical contour of the lower lid is normally concave, and this is also the case for the lower lids of persons who begin to develop herniated orbital fat about the second decade of life. In these patients, the normal concavity gradually fills out and becomes convex. The deformity increases with fatigue. In advanced cases, distinct lobulations caused by fibrous divisions between pockets, become visible through the skin. The temporal pocket usually contains less fat, though it may be more obvious than the central, or nasal, pocket. Advanced cases may also show a fourth pocket in the nasal third of the upper lid. This protrusion is medial to the reflected tendon of the superior oblique, deep to the orbicularis and superficial to the levator aponeurosis. Senile atrophy of the lid skin may be present concomittantly. Pressure on the globe through the closed lids accentuates the deformity.

Surgical treatment is usually most gratifying to both patient and surgeon. A skin incision is made below the lower lid margin, blunt separation of the orbicularis muscle fibers is done, and the three distinct sacculations of fat are penetrated. Knowing how much fat to remove is a matter of experience. The surgeon uses as a guide the amount of fat that herniates through the wound when backward digital pressure is applied to the globe through the closed upper lid. Sufficient fat must be excised to correct the deformity, but if too much fat is excised, the lower orbital margin will be abnormally depressed. Hemostasis is secured

by electrocoagulation and must be absolute.

Injudicious subcutaneous suturing may be done if the term "herniated orbital fat" leads the surgeon to believe that he must close a hernial orifice. There is no orifice, and any attempt to suture one results in ectropion or other deformity. Sutures used in closure are placed in the skin only.

The pocket in the upper lid is treated by incising the skin over the bulge, bluntly separating the orbicularis fibers and excising the pouch of fat. Complicating senile atrophy should be treated at the same time. The surgeon should avoid injuring the levator. As with the lower lid, skin suturing is the only suturing necessary or desirable. When the light dressings are removed after 12 hours, cold applications are begun.

The postoperative reaction is mild unless poor technique or some other complications intrude. The skin sutures are removed in four days.

Systemic Conditions

Endocrine disturbance should be suspected in all cases of baggy lids. If myxedema is the cause, there should usually be other symptoms, but differential diagnosis may be a problem.

If systemic diseases are present or suspected (anemia, kidney disorders, allergy, etc.), medical treatment should precede the suggestion of surgery. Poor response to surgery is obtained in patients with baggy lids due to systemic disease. We have seen myxedematous bags treated repeatedly by surgery without avail. Here medical treatment may render surgery unnecessary.

Comment

All of the conditions described above occur bilaterally. If unilateral condition is present, the clinician may question the diagnosis. For example, neurofibromatosis occurs unilaterally and simulates some of the above conditions.

Metastatic or local neoplastic disease may also confuse the clinical picture.

Concluding, we would like to emphasize that if baggy eyelids are properly diagnosed and adequately treated, the patient is pleased and happy because he looks better; the surgeon has a sense of artistic accomplishment.

[REFERENCES ON PAGE 168]

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